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## NOTICE OF ALLOWANCE AND FEE(S) DUE

23446 7590 06/13/2008

MCANDREWS HELD & MALLOY, LTD  
500 WEST MADISON STREET  
SUITE 3400  
CHICAGO, IL 60661

EXAMINER

BRIER, JEFFERY A

ART UNIT

PAPER NUMBER

2628

DATE MAILED: 06/13/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/642,458 08/18/2000

Alexander G. MacInnis

17419US01

7111

TITLE OF INVENTION: VIDEO AND GRAPHICS SYSTEM WITH AN INTEGRATED SYSTEM BRIDGE CONTROLLER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$0	\$1440	09/15/2008

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail**

**Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (571)-273-2885**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

23446 7590 06/13/2008

**MCANDREWS HELD & MALLOY, LTD  
500 WEST MADISON STREET  
SUITE 3400  
CHICAGO, IL 60661**

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE-FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/642,458	08/18/2000	Alexander G. MacInnis	17419US01	7111

**TITLE OF INVENTION: VIDEO AND GRAPHICS SYSTEM WITH AN INTEGRATED SYSTEM BRIDGE CONTROLLER**

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$0	\$1440	09/15/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
BRIER, JEFFERY A	2628	345-519000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/147; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

1

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

2

3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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EXAMINER

BRIER, JEFFERY A

ART UNIT

PAPER NUMBER

2628

DATE MAILED: 06/13/2008

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 399 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 399 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

### Notice of Allowability

**Application No.**

09/642,458

**Applicant(s)**

MACINNIS ET AL.

**Examiner**

Jeffery A. Brier

**Art Unit**

2628

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERIT IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the 03/25/2008 Board Decision.
2. ☒ The allowed claim(s) is/are 1-3,5-39,41,49-51,53 and 54.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.  
**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Board Decision***

1. This action is responsive to the US Board of Patent Appeals and Interferences Decision mailed on 03/25/2008.

An updated search discovered a 1996 IEEE article which teaches integrating MPEG transport processor and a MPEG decoder onto a single chip.

Jan Fandrianto, Single Chip MPEG2 Decoder with Integrated Transport Decoder for Set-top Box, Feb. 25-28, 1996, Compcon '96. 'Technologies for the Information Superhighway' Digest of Papers, COMPCON Spring '96 - 41st IEEE International Computer Conference, pages: 469 - 472. This article describes the MVD chip which integrates a MPEG transport processor, a MPEG decoder, a CPU, a display engine, an EPROM interface, system remote control interface, and DMA/DRAM controller onto a single integrated chip. The MVD chip receives a plurality of MPEG transport streams, video and audio, see figure 3 and description of figure 3 on page 471, and converts the transport streams to Video Stream and Audio Stream as well as other auxiliary data streams, see page 471 second column first paragraph, and converts. The article does not describe a system bridge controller with north bridge function.

The updated search also discovered six US patents and one US patent publication which all teach set-top boxes which receive transport streams and which have transport processor. These six US patents and one US patent publication do not describe a system bridge controller with north bridge function.

Coup et al., US Patent Application Publication No. 2006/0136976, describes set top boxes receive transport streams and decode transport streams.

Kandler, US Patent No. 6,526,051, describes set top boxes which receive MPEG transport streams.

Brief Summary Text - BSTX (9):

In the known system the processing device is a so-called set-top box arranged between the transmission device and the DIVAS apparatus and to which an MPEG transport stream reproduced by the DVHS apparatus or received and supplied by the transmission device can be applied. The set-top box comprises a decoder for decoding coded digital data contained in the MPEG transport stream packets of the MPEG transport stream and coded in accordance with the MPEG coding method, which now forms the first coding method, said data representing the picture information or the sound information.

Detailed Description Text - DETX (39):

FIG. 1 at the same time represents a system 1 in accordance with a second embodiment of the invention. In this system 1 the DVHS apparatus 4 forms a data source, the set-top box 3 forms a processing device, and the TV set 5 and the computer 6 each form a data sink. The magnetic-tape cassette 25, the operational reproduction link 34, the buffer stage 32, the error correction stage 35, the second data rate stage 36, and the time marker stage 30 now form second source 44. A DVHS information packet stream recorded on the magnetic tape of the magnetic-tape cassette 25 can be supplied to the MPEG output 28 as an MPEG transport stream in a reproduction mode of the DVHS apparatus 4, as already described hereinbefore.

Detailed Description Text - DETX (41):

The set-top box 3 comprises an MPEG program stream decoder 47. An MPEG transport stream applied via the MPEG connector 24 of the set-top box 3 can be supplied to the MPEG program stream decoder 47. The MPEG program stream decoder 47 is adapted to select a program stream from the MPEG transport stream. With the aid of input device not shown in FIG. 1--for example with the aid of channel up/down keys--a user of the set-top box 3 can select a desired program stream contained in a reproduced MPEG transport stream or an MPEG transport stream supplied by the DVB reception processing stage 23. For this, the MPEG program stream decoder 47 is adapted to evaluate the program association table included in the MPEG transport stream, which table specifies all the program streams included in the

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MPEG transport stream. When the user of the set-top box 3 has selected one of these program streams the MPEG program stream decoder 47 is adapted to evaluate the program map table associated with the selected program stream. The program map table specifies the packet stream identifications ID of the associated sub-streams of the selected program stream. The selected sub-streams can be supplied by the MPEG program stream decoder 47.

Detailed Description Text - DETX (42):

The set-top box 3 further comprises a decoder 48 to which the sub-streams supplied by the MPEG program stream decoder 47 can be applied. The decoder 48 is adapted to decode the coded digital data contained in MPEG transport stream packets of the sub-streams when these packets have been coded in accordance with the MPEG coding method. The decoder 48 are adapted to supply decoded information--particularly picture information and sound information--to the TV set 5 connected to the set-top box 3.

Detailed Description Text - DETX (49):

The computer 50 comprises first source 11 which include coding selection device 12, fast coding device 13, second coding device 14 and a packet stream generator 16. The computer 50 further comprises an information memory 8, which stores picture information, sound information and data information. Furthermore, an MPEG transport stream can be applied to the computer 50 via a second information input 10. The packet stream generator 16 is adapted to supply information stored in the information memory 8 or to supply information applied to the second information input 10 of the packet stream generator 16 as an MPEG transport stream, as already described for the system 1 in accordance with the first embodiment of the invention. The packet stream generator 16 is thus adapted to supply the MPEG transport stream directly to an information output 7 of the computer 50. An MPEG transport stream on the information output 7 of the computer 50 can be supplied to a further MPEG input 55 of the set-top box 51. An MPEG transport stream from the information output 7 of the computer 50 can be supplied to a further MPEG input 55 of the set-top box 51 via a cable connection 54. An MPEG transport stream applied to the further MPEG input 55 can be applied to an MPEG program stream decoder 47, which is adapted to select program streams contained in the MPEG transport stream, as already described for the second embodiment. The MPEG program stream decoder 47 is adapted to supply the sub-streams of the selected program stream to decoder 48. The decoder 48 is adapted to decode the coded digital data contained in MPEG transport stream packets applied to the decoder 48 and coded in accordance with the MPEG coding method. The decoder 48 are further adapted to supply the decoded information as picture information and sound information to the TV set 5.

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Humpleman, US Patent No. 7,003,796, teaches separate MPEG transport demultiplexing in 32 but still sends a single stream to set top box 40.

Description Paragraph - DETX (51):

The separation of the network interface unit 32 from the set-top electronics 40 provides a number of advantages, as described earlier. The functions (responsibilities) of the conventional set-top boxes with integrated network interface units are divided in embodiments of the present invention. For example, in preferred embodiments, the network interface unit 32 is responsible for performing external network specific interfacing, tuning demodulation, and error correction. It provides external network specific video descrambling and encryption/decryption (credit card number, user password, etc.). The network interface unit 32 also provides an external network specific program guide. Additionally, it performs MPEG transport demultiplexing to a single stream and MPEG reference clock recovery. In preferred embodiments of the invention, the network interface unit provides home network Ethernet interfacing and MPEG/Ethernet clock locking. It also provides the software to support the external network and home network protocols for multiple streams and multiple users. The network interface unit also has the software to act as the gateway for the home network and control the buffering of data as necessary.

Humpleman, US Patent No. 5,886,732, teaches separate MPEG transport demultiplexing in 32 but still sends a single stream to set top box 40.

Detailed Description Text - DETX (42):

The separation of the network interface unit 32 from the set-top electronics 40 provides a number of advantages, as described earlier. The functions (responsibilities) of the conventional set-top boxes with integrated network interface units are divided in embodiments of the present invention. For example, in preferred embodiments, the network interface unit 32 is responsible for performing external network specific interfacing, tuning demodulation, and error correction. It provides external network specific video descrambling and encryption/decryption (credit card number, user password, etc.). The network interface unit 32 also provides an external network specific program guide. Additionally, it performs MPEG transport demultiplexing to a single stream and MPEG reference clock recovery. In preferred embodiments of the invention, the network interface unit provides home network Ethernet interfacing and MPEG/Ethernet clock locking. It also provides the software to support the external network and home network protocols for multiple streams and multiple users. The network interface unit also has the software to act as the gateway for the home network and control the buffering of data as necessary.



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Huizer et al., US Patent No. 6,751,802, describes set top box STB 2 receives MPEG transport stream TS from server 1.

Detailed Description Text - DETX (2):

FIG. 1 shows a system comprising a Video-On-Demand (VOD) server 1 and a set top box (STB) 2 connected via a network 3. The VOD-server comprises a storage medium 11 and a VOD-controller 12. The STB comprises an MPEG decoder 21, an STB-controller 22 and a (remote) control unit 23, and is connected to a reproduction device 4. User commands from remote control unit 23 are applied to STB-controller 22 and, as far as they require actions to be taken by the server, transmitted to the VOD-controller 12 via the network 3 as a control signal CTRL. A selected television program is transmitted from the server 1 to STB 2 in the form of an MPEG Transport Stream TS.

Huizer et al., US Patent No. 5,873,022, describes set top box STB 2 receives MPEG transport stream TS from server 1.

Detailed Description Text - DETX (2):

FIG. 1 shows a system comprising a Video-On-Demand (VOD) server 1 and a set top box (STB) 2 connected via a network 3. The VOD-server comprises a storage medium 11 and a VOD-controller 12. The STB comprises an MPEG decoder 21, an STB-controller 22 and a (remote) control unit 23, and is connected to a reproduction device 4. A latency buffer 24 is connected between the set top box input and the MPEG decoder 21. The buffer fullness F is applied to STB-controller 22. User commands from remote control unit 23 are also applied to the STB-controller 22 and, as far as they require actions to be taken by the server, transmitted to the VOD-controller 12 via the network 3 as a control signal CTRL. A selected television program is transmitted from the server 1 to STB 2 in the form of an MPEG Transport Stream TS.

Temple et al., US Patent No. 6,628,678, describes set top box which receives MPEG transport stream or psudeo MPEG transport stream.

Detailed Description Text - DETX (10):

The MPEG transport stream or pseudo MPEG transport stream signal (FIG. 4(f)) received from the network is received by the set top box. The type of signal (i.e. broadcast or narrowcast) is determined either on the basis of the selected channel (such that certain channels contain one or the other type of signal), or by passing the

signal to a narrowcast/broadcast detector which determines whether narrowcast or broadcast signals are being received. The detector controls the selector 12 to alter the source of data accordingly. In particular, the selector 12 can be controlled to receive data directly from the input to the set top box in the case of broadcast reception or from an ATM termination and data extractor unit 11 in the case of narrowcast transmission.

## **REASONS FOR ALLOWANCE**

2. The following is an examiner's statement of reasons for allowance:

The six newly cited US patents and one newly cited US patent publication each teach set-top boxes which receive transport streams and which have transport processor. The newly cited Fandrianto article teaches receiving a plurality of transport streams at a chip integrating a transport processor on the same chip as a MPEG decoder, a CPU, a display engine, an EPROM interface, system remote control interface, and DMA/DRAM controller but does not teach integrating the transport processor on the same chip having the system bridge controller having the north bridge function. Thus, the prior art of record fails to teach in the context of the independent claims placing the MPEG transport processor on the same chip having the system bridge controller having the north bridge function.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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3. The claims have been renumbered as follows:

Old claim no.	New claim no.	Old claim no.	New claim no.
1	1	24	28
2	3	25	29
3	4	26	30
5	5	27	31
6	6	28	32
7	7	29	33
8	8	30	34
9	9	31	35
10	10	32	36
11	11	33	37
12	12	34	38
13	13	35	39
14	14	36	40
15	15	37	41
16	16	38	42
17	17	39	43
18	18	41	2
19	19	49	22
20	20	50	23
21	21	51	44
22	26	53	24
23	27	54	25

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A. Brier whose telephone number is (571) 272-7656. The examiner can normally be reached on M-F from 7:30 to 4:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/Jeffery A. Brier/  
Primary Examiner, Division 2628